

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Applicant: §  
Dean Rosales §  
Serial No.: 09/821,563 §  
Filed: March 29, 2001 §  
For: Providing Multiple §  
Symmetrical Filters §  
Art Unit: 2624  
Examiner: Wesley J. Tucker  
Conf. No.: 5880  
Atty Docket: ITL.0536US  
P10841

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P.O. Box 1450  
Alexandria, VA 22313-1450

**APPEAL BRIEF**

This responds to the office action mailed March 5, 2010.

*Cynthia L. Hayden*  
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Date of Deposit: July 28, 2010  
I hereby certify that this correspondence is being electronically  
transmitted on the date indicated above.

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## **REAL PARTY IN INTEREST**

The real party in interest is the assignee Intel Corporation.

**RELATED APPEALS AND INTERFERENCES**

None.

## **STATUS OF CLAIMS**

Claims 1-25 are rejected. Each rejection is appealed.

## **STATUS OF AMENDMENTS**

All amendments have been entered.

## SUMMARY OF CLAIMED SUBJECT MATTER

In the following discussion, the independent claims are read on one of many possible embodiments without limiting the claims:

1. The method comprising:
  - receiving in a digital image processor, image data (Fig. 7, 52) (specification at page 14, lines 3-4); and
  - simultaneously determining, in said processor, at least two filters of different sizes from said data (Figure 7, 58, 60) (specification at page 4, lines 6-11).

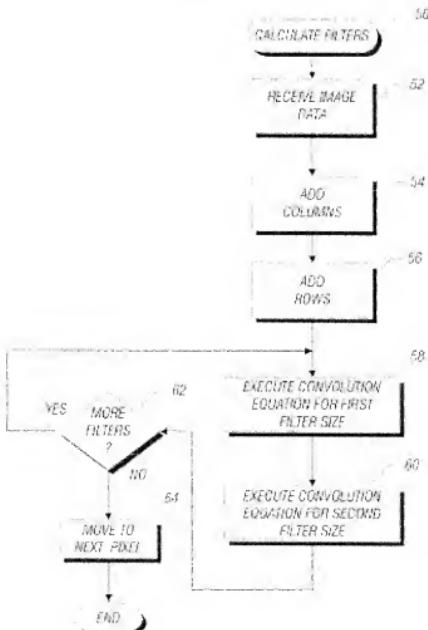


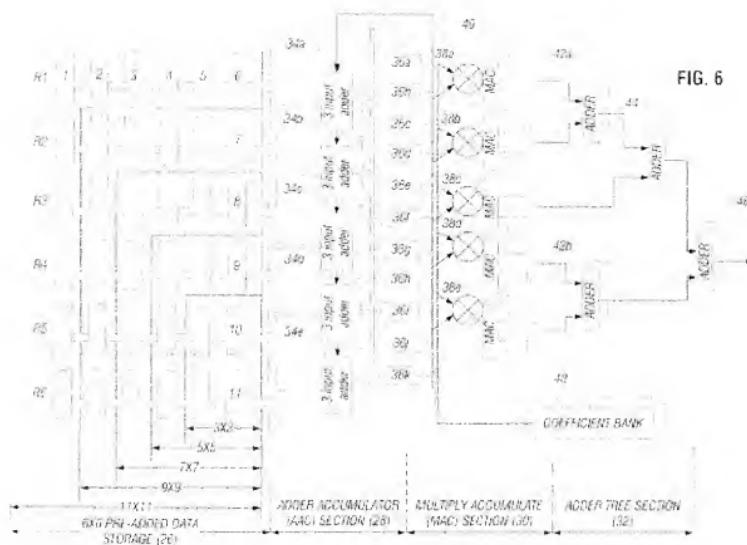
FIG. 7

9. The method of claim 1 including simultaneously generating at least three filters of different sizes (specification at page 6, lines 9-18; page 9, lines 22-28).

11. An article comprising a medium storing instructions that enable a processor-based system to:  
receive image data (Fig. 7, 52) (specification at page 14, lines 3-4); and  
simultaneously determine at least two filters of different sizes from said data (Figure 7, 58, 60) (specification at page 4, lines 6-11).

19. The article of claim 11 further storing instructions that enable the processor-based system to simultaneously generate at least three filters of different sizes (specification at page 6, lines 9-18; page 9, lines 22-28).

21. The system comprising:  
a first set of adders (Figure 6, 34) to add together rows and to add together columns of image data (specification at page 10, lines 13-21); and  
a second set of adders (Figure 6, 42) and a first set of multipliers (Figure 6, 38) to calculate at least two different filter sizes from said image data (specification at page 10, line 22 to page 11, line 2).



At this point, no issue has been raised that would suggest that the words in the claims have any meaning other than their ordinary meanings. Nothing in this section should be taken as an indication that any claim term has a meaning other than its ordinary meaning.

**GROUNDΣ OF REJECTION TO BE REVIEWED ON APPEAL**

- A. Whether the Disclosure Is Enabling of Claims 1, 9, 11, and 19 under 35 U.S.C. § 112, First Paragraph.
- B. Whether Claims 1, 4, 8-11, and 18-20 Are Anticipated under 35 U.S.C. § 102(b) by Park.

## ARGUMENT

### **A. Is the Disclosure Enabling of Claims 1, 9, 11, and 19 under 35 U.S.C. § 112, First Paragraph?**

Claim 1 calls for receiving image data and “simultaneously” determining at least two filters of different sizes from the data. In the Advisory Action, the Examiner states that he “agrees that the values calculated for the 3x3 filter are available in use for the 5x5 filter calculation.” But the Examiner insists that the claim requires that the 5x5 filter be calculated entirely simultaneously with the 3x3 filter. Such an interpretation is wrong as a matter of law because it reads the word “entirely” into claim 1 before “simultaneously.”

In other words, the Examiner agrees that at least a portion of the 3x3 and 5x5 filters are calculated at the same time. But he insists that to meet the claim limitations, they must all be calculated at the same time. However, this position is completely inconsistent with the claim language that says simply “simultaneously” determining at least two filters. Those filters are simultaneously calculated in part; just all of the filter values are not simultaneously calculated.

In paragraph 4 of the final rejection, it is indicated that the 5x5 filter is calculated using information obtained due to the prior calculation of the 3x3 filter. The Examiner then concludes that “therefore, the calculation of the 5x5 filter must take place some moment after the 3x3 filter calculation because the 3x3 calculation is referred to as prior. The Examiner contends that this is in direct contradiction of the conventional definition of simultaneous, which is taken to mean occurring at the same time.

But the calculation of the 5x5 filter does take place at the same time as the calculation of the 3x3 filter because the calculation of the 3x3 filter is part of the calculation of the 5x5 filter. Therefore, the 3x3 and 5x5, by the Examiner’s own definition, are necessarily undertaken simultaneously.

### **B. Are Claims 1, 4, 8-11, and 18-20 Anticipated under 35 U.S.C. § 102(b) by Park?**

As best it can be understood, it is argued that Park inherently does what is claimed. But there is no reason that Park inherently calculates the filters in the fashion claimed, namely simultaneously. See M.P.E.P. § 2112 (the allegedly inherent characteristic must necessarily flow from the teachings of the prior art). He could do them totally separately and serially. There is no

reason to presume that he overlapped the calculations in the way claimed. Therefore, Park's teaching cannot meet the claims inherently since there is nothing whatsoever in Park that suggests that the filters are calculated simultaneously, and there is no reason why this must necessarily be so.

\* \* \*

Applicant respectfully requests that each of the final rejections be reversed and that the claims subject to this Appeal be allowed to issue.

Respectfully submitted,

Date: July 28, 2010

  
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## CLAIMS APPENDIX

The claims on appeal are:

1. The method comprising:  
receiving in a digital image processor, image data; and  
simultaneously determining, in said processor, at least two filters of different sizes  
from said data.
  
2. The method of claim 1 wherein receiving data includes receiving a matrix of data  
having rows and columns, and reducing the number of rows and reducing the number of  
columns.
  
3. The method of claim 2 including adding rows together and adding columns  
together.
  
4. The method of claim 1 including progressively calculating filters from smaller to  
larger sizes.
  
5. The method of claim 4 including receiving image data values, adding the values  
together, and multiplying the values by convolution coefficients.
  
6. The method of claim 5 including reusing the results of said additions and  
multiplications calculated for one filter size, when calculating a filter of a larger size.
  
7. The method of claim 1 including receiving data values in rows and columns, and  
adding together data values along diagonals.
  
8. The method of claim 1 including calculating at least two filters for a first pixel  
among said image data and then calculating a filter for an adjacent pixel.

9. The method of claim 1 including simultaneously generating at least three filters of different sizes.
10. The method of claim 1 including successively calculating filters of progressively larger size.
11. An article comprising a medium storing instructions that enable a processor-based system to:
  - receive image data; and
  - simultaneously determine at least two filters of different sizes from said data.
12. The article of claim 11 further storing instructions that enable the processor-based system to reduce the number of rows of image data and reduce the number of columns of image data.
13. The article of claim 12 further storing instructions that enable the processor-based system to add values associated with rows together and to add values associated with columns together.
14. The article of claim 11 further storing instructions that enable the processor-based system to progressively calculate filters from smaller to larger size.
15. The article of claim 14 further storing instructions that enable the processor-based system to receive image data values, add the values together, and multiply the values by convolution coefficients.
16. The article of claim 15 further storing instructions enable the processor-based system to reuse the results of said additions and multiplications calculated for one filter size, when calculating a filter of a larger size.

17. The article of claim 11 further storing instructions that enable the processor-based system to receive data values in rows and columns, and add together data values along diagonals.

18. The article of claim 11 further storing instructions that enable the processor-based system to calculate at least two filters for a first pixel among said image data and then calculate a filter for an adjacent pixel.

19. The article of claim 11 further storing instructions that enable the processor-based system to simultaneously generate at least three filters of different sizes.

20. The article of claim 11 further storing instructions that enable the processor-based system to successively calculate filters of progressively larger size.

21. The system comprising:

a first set of adders to add together rows and to add together columns of image data; and  
a second set of adders and a first set of multipliers to calculate at least two different filter sizes from said image data.

22. The system of claim 21 that progressively calculates filters from smaller to larger sizes.

23. The system of claim 22 that utilizes the results from said second set of adders and first set of multipliers for one filter size, when calculating a filter of a larger size.

24. The system of claim 21 including a state machine that controls the operation of said first and second adders and said first set of multipliers.

25. The system of claim 21 wherein said second set of adders adds image data along diagonals.

## **EVIDENCE APPENDIX**

None.

**RELATED PROCEEDINGS APPENDIX**

None.